

## CLAIMS

What is claimed is:

- 5 1. A method comprising the steps of:  
determining the actual consumption of specified system resources in a logical partition;  
comparing said actual consumption with a specified permitted consumption for said  
resources in said logical partition; and  
reducing said actual consumption of said resources to said specified permitted  
10 consumption if said actual consumption exceeds said permitted consumption.
2. The method of claim 1 in which said specified system resources are processor resources.
3. The method of claim 1 in which said actual consumption is determined by averaging said  
15 consumption over a plurality of time intervals.
4. In an information handling system in which a physical machine comprises one or more  
logical partitions, each of which is allocated a defined portion of machine resources, a method of  
enforcing capacity limitations including the steps of:  
specifying a maximum allowed consumption of said resources by one of said one or more  
20 logical partitions;  
measuring an actual consumption of said resources by said logical partition;  
comparing said actual consumption with said maximum allowed consumption to  
determine whether said actual consumption exceeds said maximum allowed consumption; and  
25 if said actual consumption exceeds said maximum allowed consumption, reducing said  
actual consumption of said resources to said maximum allowed consumption.
5. The method of claim 4 in which said logical partition is one of a group of logical  
partitions, said maximum allowed consumption being specified as a proportion of the resources  
30 available to said group of logical partitions.

6. The the method of claim 4 in which said group of logical partitions comprises all of the logical partitions on said physical machine.

7. The method of claim 5 in which each of the logical partitions in said group is assigned a weight, said proportion being defined as the ratio of the weight of said logical partition to the sum of the weights of the logical partitions in said group.

8. The method of claim 7 in which said logical partition is also assigned a phantom weight that is added to said sum of the weights of the logical partitions in said group in determining said ratio.

9. The method of claim 4 in which said specified system resources are processor resources.

10. The method of claim 4 in which said actual consumption is determined as an rolling average of said consumption over a predetermined time interval.

11. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method steps of claim 1.

12. In an information handling system in which a physical machine comprises one or more logical partitions, each of which is allocated a defined portion of machine resources, apparatus for enforcing capacity limitations including:

means for specifying a maximum allowed consumption of said resources by one of said one or more logical partitions;

means for measuring an actual consumption of said resources by said logical partition;

means for comparing said actual consumption with said maximum allowed consumption to determine whether said actual consumption exceeds said maximum allowed consumption; and

means for reducing said actual consumption of said resources to said maximum allowed consumption if said actual consumption exceeds said maximum allowed consumption.

